DOCUMENT RESUME

ED 331 179 EA 022 941

AUTHOR Pierce, Gloria
TITLE Critical Thinking: The Role of Management Education. Developing Managers To Think Critically.
PUB DATE Aug 90
NOTE 18p.; Paper presented at the Annual Conference on Critical Thinking and Educational Reform (10th, Rohnert Park, CA, August 5-8, 1990).
PUB TYPE Guides - Non-Classroom Use (055) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Administrator Education; Critical Incidents Method; *Critical Thinking; Decision Making; *Educational Methods; Higher Education; Instructional Films; Interpretive Skills; Journal Writing; *Management Development; Problem Solving; Role Perception; Role Playing; Skits

ABSTRACT

Emphasizing critical thinking as the source of renewal and survival of organizations, this document begins by analyzing the Exxon Valdez oil spill and the destruction of the space shuttle Challenger as examples of inadequate critical thinking. The role of management education in promoting critical thinking is explored as well as the need for a supportive but challenging learning environment for managers. Next, several methods for facilitating critical thinking among adults are explained: (1) critical incidents; (2) relationship and problem analyzer; (3) journals; (4) role reversal through reverse role play and critical debate; (5) interpretive scenarios; and (6) films and skits. Last, conclusions related to the use of critical thinking in the future are offered. (13 references) (CLA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 231 179

"Critical Thinking: The Role of Management Education"

By

Gloria Pierce, Ed.D.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

E. Pierce

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS 206 941

BEST COPY AVAILABLE

Developing Managers To Think Critically

By

Gloria Pierce, Ed.D.

DEVELOPING MANAGERS TO THINK CRITICALLY

If business enterprises are to remain viable in the 1990s and beyond, their learning agents (employees at all organizational levels) must learn to question current operating practices in order to revitalize and improve organizational functioning. Without such renewal, organizations are in danger of decline and death. In the face of such high stakes, critical thinking may be our best chance to increase the odds for organizational survival in the 21st century. This paper is based on the assumption that it is in the authentic self-interest of organizations to concentrate management training and executive development efforts on developing critical thinking at all management levels.

A Tale of Two Tragedies

Two highly visible, unfortunate events illustrate the importance of educating managers to engage in critical thinking processes. Consider the images of disaster and destruction evoked by the space shuttle Challenger and the Exxon Valdez. Admittedly, the consequences for Morton Thiokol, NASA, Exxon, the U.S. Coast Guard and Alyeska, were severe. The damage extended far beyond the permeable boundaries of these organizational systems, however. These events demonstrated dramatically that managerial decisions made within the walls of particular organizations can have

far-reaching outcomes that affect millions of people who do not directly participate in making those decisions. Increasingly, these stakeholders are demanding greater corporate responsibility as the interdependent nature of social reality becomes more evident. Management education can help managers understand their organizations as open systems in a larger suprasystem which they affect and which affects them. Training can also help to develop the critical thinking abilities necessary to function effectively in a global community.

At any one of several critical decision points in the management process--in strategic, operational, contingency planning and supervisory practices related to employee performance standards, competence and accountability--better decisions could have been made and the Valdez incident averted or mitigated. The absence or inadequacy of emergency plans to clean up a large oil spill, the failure of supervisory action to resolve an employee's problem of alcohol abuse, and staffing cutbacks to reduce costs, can all be seen as severe deficiencies in critical thinking at various management levels throughout the corporation.

Furthermore the Coast Guard and Alyeska, a consortium of oil companies operating in Prudhoe Bay, resisted the safeguards proposed by the state of Alaska, such as double-hulled tankers, radar monitoring and tugboat escorts through Prince William Sound. The dismantling of clean-up plans and safety precautions may have been based on the belief

that such a spill would not occur or that the benefit of such measures did not warrant the expense (Malcolm, 1989). More careful critical analysis of such assumptions could have altered the choices which eventually resulted in the catastrophe that occurred. As officials told the Associated Press, "Decisions made by state and federal officials and the oil industry bear far more scrutiny than the drinks downed by Capt. Lee Hazelwood." (McCartney,1989, C1) Former Department of Environmental Conservation supervisor, Randy Bayliss used this metaphor: "We all allowed the grenade to be built. Hazelwood merely pulled the pin." (Ibid., C1)

Analysis of the Challenger disaster in 1986 focused attention on the flawed decision-making practices and underlying managerial assumptions at NASA and Morton Thiokol. NASA was described as "a hidebound space agency fraught with lax management oversight, intramural turf battles between headquarters and key field centers and a tendency toward compartmentalized bureaucratic thinking" (Magnuson, 1986, p. 14). Its communication processes were revealed as faulty when the ensuing investigation found that the highest officials had not even been informed of the engineers' opposition to the launch.

NASA managers who did hear of the recommendation to delay the launch assumed safe conditions, demanding proof from the engineers that conditions were unsafe. The assumption made by upper management at Morton Thiokol demonstrates an apparent disregard for the knowledge and expertise of those employees

at lower levels in the organizational hierarchy. Another assumption was that managerial and technical decisions could be clearly separated. The final recommendation to NASA was made without any "vote" from the individual contributors most familiar with the equipment in question--the engineers.

NASA's goals may have been too ambitious, causing managers to choose speed over safety and to choose quantity (number of shuttle flights) over quality (successfully completed missions). As a former NASA director stated, "There seems to have been a speed-up policy at NASA. There are signs that complacency may have set in and that is not good for safety". (Magnuson, 1986, p. 16). A NASA engineer lamented, "We are being driven by a launch manifest, not hardware capability or concerns about anything else" (Ibid., p. 16).

The Role of Management Education

The dual purpose of management education is to expand awareness of managers and thereby enhance the health and effective functioning of organizations. Critical thinking is a central process in fulfilling this purpose. Management educators therefore, are faced with the responsibility as well as the opportunity to make a significant contribution to their organizations by developing critical thinking skills and attitudes among managers.

Critical thinking in the workplace requires that managers (1) become aware of the unintended outcomes, effects and consequences of their actions; (2) identify and question the

validity of the assumptions and beliefs upon which their decision-making criteria and operating practices are based and (3) expand their awareness to include alternative perspectives and possible courses of action. Such a process can be difficult, frustrating and sometimes painful. Although the payoff may be acknowledged intellectually, such learning requires an emotional investment as well as an intellectual one. Hence the affective component of such education and training must be acknowledged and resistance overcome.

To do this a supportive but challenging learning environment must be created. The turbulent, uncertain marketplace can cause high levels of anxiety and stress in managers. The deliberate creation of a safe atmosphere where concerns can be discussed openly and alternatives explored freely is a necessary condition for developing thinking critically about business. A non-judgmental attitude on the part of the facilitator models behavior that allows for honest, candid articulation of the beliefs that drive decisions and actions.

Research indicates that off-site residential training programs can provide the quiet space necessary to engage in transformative learning processes (Pierce, 1986). Sufficient time, a safe space and skilled, compassionate facilitators are essential. Such a "pause" slows the pace of life and breaks daily routines and habitual thought patterns, allowing managers to reflect and examine current practices and beliefs to explore more effective alternatives.

Methods for Facilitating Critical Thinking

Two key components in critical thinking are assumption analysis and imaginative speculation (Brookfield, 1987). In education for critical thinking, learners are helped to identify and question the validity of their assumptions and to imagine and become receptive to alternative or expanded perspectives. This section describes several methods that successfully facilitate these processes in adult learners when used in a non-threatening climate.

Critical Incidents

The use of critical incidents (Flanagan, 1954) is an effective yet non-threatening method of stimulating critical reflection. Participants are asked to reflect on a particularly successful experience in their professional life, one where they accomplished an important goal, solved a difficult problem or contributed to a significant project. They first work in small sub-groups of four or five to identify and discuss common elements and then submit a brief report to the other sub-groups. Or they may each be asked to contribute one outstanding feature of their incident as the facilitator records it on a flipchart. In this way, "a picture of excellence" emerges which is used to identify criteria for effective practice.

When this positive critical incident is completed, attention is turned to a negative case incident and the elements are compared. By reflecting on their own best and

worst incidents, participants generate and clarify criteria for professional practice. When there is disagreement, it can serve as a springboard for teasing out the presuppositions of the opposing viewpoints and questioning their accuracy. Through this type of critical discourse, both views are held up to scrutiny by the group, often resulting in an entirely new insight or concept. This type of dialectical process usually produces a high level of energy in the group and stimulates critical reflection on significant events in learners' professional lives.

Schein (1985) suggests that the implicit norms and values of organizational cultures can be made explicit through examining emotionally laden events in the business' history. These could be crisis points at which the very survival of the organization was at stake or other painful periods, such as a reorganization, merger or relocation. Whatever variation of the critical incident method is used, whatever specific job function, organization setting or issue is analyzed, the exercise should result in bringing hidden assumptions to awareness.

Relationship and Problem Analyzer

As this happens, participants begin to look at problems they are facing in a different way. Typically, in a management workshop, managers begin to take more responsibility as they realize how their own mindsets powerfully impact their relationships with subordinates, peers

and others in the workplace. At certain intervals throughout the workshop, therefore, managers are given opportunities to analyze key relationships or problems they are involved in at work. They are asked to take 15-30 minutes to reflect on a specific problem or difficult relationship they would like to improve. They then write answers to questions such as, "what am I now doing that seems to contribute to the areas of difficulty?"; "what areas of strength does the situation or relationship have?"; "what do I expect from this situation/person?"; "how do others see the situation?"; "what do others expect from me?"

Such questions help to develop empathy for the other person as well as the self-insight essential for effective management. Sometimes self-discovery consists of managers realizing they do not know enough about their employees' goals and strengths to be able to manage well. They may realize they are discouraging their employees rather than motivating them by attempting to control rather than release employees' energies. Often, they uncover such misconceptions of the managerial role which have caused them to act in counterproductive ways.

In the later stages of the workshop, managers are asked to imagine the relationship as they would like it to be in six months and to plan specific actions they can take to bring it about. In summary, the relationship problem analyzer is an effective method to help managers identify and correct distortions in their perspectives, reformulate problems, and

imagine and create new possibilities.

Journals

Another method that helps extend perspectives on a situation is journal writing. Participants keep learning journals in which they record their thoughts, judgments and feelings about daily events and share these with each other. The process helps writers become familiar and comfortable with the affective element of their experience and to appreciate its impact on their thinking and behavior.

After reading and listening to passages from their journals, participants problematize from recurring themes: they define a problematic issue in one person's journal. Then the group generates many different ways of understanding this problem by repeatedly asking, "Could it be that...?" and recording as many responses as possible on flipcharts.

After generating a wide spectrum of diverse perspectives, participants become dissatisfied with their original definition of the problem. In other words, this combination of journaling and brainstorming facilitates problem reformulation and makes it more likely that the right problem will be solved. The extra benefit of this method is that it is easily used in the workplace itself and need not be restricted to a critical thinking workshop.

Role Reversal Through Reverse Roleplay and Critical Debate

In reverse roleplay, participants encounter themselves by

reversing roles with someone they have an important relationship with - a subordinate, their manager, a peer or client. As the roleplay drama unfolds, participants are able to feel and see more clearly the effects of their behavior on others.

Facilitators process the roleplay by asking the group to analyze how each actor's perceptions, feelings, thoughts and behavior interacted to produce the events that took place. In so doing, participants are often surprised and sometimes dismayed to discover the assumptions driving their actions. It was disconcerting for one manager to realize that he assigned projects to his employees as if they were "interchangeable parts" because he assumed that people operate like machines. Once this assumption was surfaced and named, the manager could begin to challenge it by reflecting on his own motivating work assignments.

The critical debate (Daloz, 1986) is another format in which role reversal is used to develop an understanding of other points of view. Panels of participants argue for a position with which they disagree. Taking the opposite side of an issue forces the consideration of alternative perspectives and reasoning within those perspectives.

Interpretive Scenarios

Participants are given sketchy descriptions of ambigious events or situations they might encounter in the workplace and then are asked to write a brief interpretation of what they

have read (Morgan, 1989). Next, they share their interpretations with three or four other participants and discuss on what grounds they made these interpretations. They are encouraged to broaden their inquiry to the underlying basic assumptions they made about the nature of work or authority relationships, concepts of themselves as employees, how to succeed (or fail) in the organization or other pertinent issues.

A variation on this technique is the interpretive cartoon or photograph (DeBono, 1970) which uses an ambiguous visual situation in a similar way. Participants are first asked to fill in the empty balloons over the cartoon characters' heads. The words they put into their characters' mouths reveal their perceptions and interpretations of the situation and provide clues to their implicit assumptions and beliefs. Participants should be encouraged to explore how semi-conscious beliefs and presuppositions affect their interpretations, how the sharing of contrasting perspectives may have changed their original interpretation, and the justifications and consequences of their assumptions and beliefs.

Films and Skits

Films or videotapes can be used as mirrors in which managers can see reflections of their own behaviors and thoughts. Humorous film clips are especially effective because they tend to be less threatening. Participants laugh at a comic character who makes poor decisions based on faulty

reasoning and assumptions, and realize that they have acted similarly. Tapes and films are debriefed by asking what was taken for granted and other questions designed to facilitate critical inquiry.

A more creative form of debriefing is to extend the dramatic situation in time. Participants are asked to assume the role of a character in the drama and to continue the situation further. Not only do participants develop empathy for the characters they portray, they also are able to see the likely consequences and results of their actions. They might also be asked to imagine and create a new scenario based on a change in perspective of one or more characters.

A more elaborate way to create alternative futures is to invite participants to perform skits. For instance, a popular exercise used in my own management programs asks a "cast" of five or six managers to deliver a skit based on their conception of the manager's role in the business enterprise. Often, the "actors" contrast satiric, negative portrayals based on dysfunctional norms and inadequate perspectives with their vision of a changed reality. This is a type of futures invention whereby managers experiment with workplace transformation and literally "rehearse" actions based on expanded perspectives.

Such activities can be powerful experiences for participants, as their comments indicate: "My aha! moments came in the skits and films. I saw management doing negative things and I don't want to get into that. They made me more

determined than ever not to do those things." Another stated, "I watched the movies and sank lower in my chair because I saw myself doing those things. Lots of things I became aware of like that - seeing myself in the scenes." (Pierce, 1986, p. 260).

Conclusions

Failure to develop critical thinking does show up on a balance sheet. It has cost Exxon over a billion dollars for clean-up and litigation. The company's losses in terms of declining profit margins due to customer boycotts and ill will is unknown. The financial loss to Alaskan fishermen, American consumers and taxpayers is more difficult to assess. Other losses cannot be determined economicaly; loss of human life, wildlife, destruction of the environment and damage to the national spirit are incalculable.

Managerial actions and decisions emanating from critical thinking ultimately strengthen and benefit the organization by enhancing the environment which sustains and supports it. It is, therefore, in the best interest of organizations to foster critical thinking among managers. Training and development can play an important role in helping to develop critical thinking skills.

Ahead lie many choices which will be made by corporate and government decision-makers, the effects of which will extend beyond the boundaries of the corporate and national boundary. The father of the Atomic Age himself warned of the

danger of remaining trapped in limited, inadequate perceptual and cognitive structures. Einstein observed that "the splitting of the atom changed everything except humankind's mode of thinking; thus we drift toward unparalleled catastrophe" (Caldicott, 1982, p. 10). If enough key decision-makers in the 1990's and the 21st century develop the skill and ability to think critically perhaps a more hopeful scenario can be written.

References

Brookfield, Stephen. Developing Critical Thinkers. San Francisco: Jossey-Bass, 1988.

Caldicott, Helen. (1982, Sep/Oct). "A Commitment to Life." The Humanist. pp. 5-11.

Daloz, L. Effective Teaching and Mentoring: Realizing the Transformational Power of Adult Learning Experiences. San Francisco: Jossey-Bass, 1986.

DeBono, Edward. Lateral Thinking: Creativity Step by Step. NY: Harper & Row, 1970.

Flanagan, J.C. "The Critical Incident Technique" Psychological Bulletin, 1954, 51(4), 327-328.

Magnuson, Ed. (1986, March 3). "The Questions Get Tougher." Time, pp.14-16.

_____. (1986, March 10). "A Serious Deficiency." Time, pp. 38-42.

Malcolm, Andrew. 1989, April 16). "How the Oil Spilled and Spread: Delay and Confusion Off Alaska." The New York Times, pp. 1, 30.

McCartney, Scott. "In Alaska, course for doom began a decade ago." The Associated Press, Asbury Park Press, April 16, 1989.

Morgan, Gareth. Creative Organization Theory. Newbury Park, CA: 1989.

Pierce, Gloria. Management Education for an Emergent Paradigm. Doctoral Dissertation, Columbia University, 1986.

Progoff, Ira. At a Journal Workshop. NY: Dialogue House, 1981.

Schein, Edgar. Organizational Culture and Leadership: A Dynamic View. San Francisco: Jossey-Bass, 1985.